

[0030] The controller is configured to change line times of the first image sensor to color image line times if the second image is a color image.

[0031] The image acquiring apparatus may further include a reflecting member configured to reflect light emitted from the second image sensor and having penetrated the document

[0032] The reflecting member may include a first reflecting part and a second reflecting part, the first reflecting part having higher optical reflectivity than the second reflecting part.

[0033] The user input unit further receives a double-side acquisition instruction to acquire the first image formed the first surface and the second image formed the second surface, and the image acquiring apparatus may further include a reflecting member moving module configured to move the reflecting member such that the first reflecting part is aligned with the second image sensor if the single-side acquisition instruction is input, and move the reflecting member such that the second reflecting part is aligned with the second image sensor if the double-side acquisition instruction is input.

[0034] the user input unit further receives a double-side acquisition instruction to acquire the first image formed the first surface and the second image formed the second surface, and the image acquiring apparatus may further include a sensor moving module configured to move the first image sensor such that the first reflecting part is aligned with the second image sensor if the single-side acquisition instruction is input, and move the first image sensor such that the second reflecting part is aligned with the second image sensor if the double-side acquisition instruction is input.

[0035] In accordance with another aspect of the present disclosure, an image forming apparatus is provided. The image forming apparatus includes a user input unit configured to receive a single-side acquisition instruction for acquiring a first image formed on a first surface of a document; a document feed module configured to feed the document; a second image sensor configured to obtain a second image shown on a second surface of the document while the document is being fed, the second image being corresponding to the first image shown through the second surface; a first image sensor configured to obtain the first image formed on the first surface while the document is being fed; an image former configured to print the first image obtained by the first image sensor onto a print medium; and a controller configured to process the first image obtained by the first image sensor, based on the second image obtained by the second image sensor and print the processed first image on the print medium.

[0036] Other aspects, advantages, and salient features of the disclosure will become apparent to those skilled in the art from the following detailed description, which, taken in conjunction with the annexed drawings, discloses exemplary embodiments of the disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

[0037] The above and other features and advantages of the present disclosure will become more apparent by describing in detail exemplary embodiments thereof with reference to the attached drawings in which:

[0038] FIG. 1 illustrates an exterior view of an image acquiring apparatus, according to an embodiment of the present disclosure;

[0039] FIG. 2 is a block diagram of an image acquiring apparatus, according to an embodiment of the present disclosure;

[0040] FIG. 3 illustrates arrangement of first and second image sensor modules included in an image acquiring apparatus, according to an embodiment of the present disclosure;

[0041] FIG. 4 illustrates arrangement of first and second image sensor modules included in an image acquiring apparatus, according to another embodiment of the present disclosure;

[0042] FIG. 5 is a flowchart illustrating an image acquiring method carried out by an image acquiring apparatus, according to an embodiment of the present disclosure;

[0043] FIG. 6 illustrates an image formed on a document;

[0044] FIG. 7 illustrates a penetrated image obtained by the image acquiring method shown in FIG. 5;

[0045] FIG. 8 is a flowchart illustrating an image acquiring method carried out by an image acquiring apparatus, according to another embodiment of the present disclosure;

[0046] FIGS. 9A and 9B illustrate changing back shading offsets according to the image acquiring method shown in FIG. 8;

[0047] FIGS. 10A and 10B illustrate a conventional penetrated image and histogram;

[0048] FIGS. 11A and 11B illustrate a penetrated image and histogram obtained by changing a black shading offset;

[0049] FIGS. 12A, 12B, and 12C illustrate changing gamma values according to the image acquiring method shown in FIG. 8;

[0050] FIG. 13 is a block diagram of an image acquiring apparatus, according to another embodiment of the present disclosure;

[0051] FIG. 14 illustrates a reflecting member included in an image acquiring apparatus, according to an embodiment of the present disclosure;

[0052] FIGS. 15 and 16 illustrate functionalities of a reflecting member included in an image acquiring apparatus, according to an embodiment of the present disclosure;

[0053] FIGS. 17 and 18 illustrate arrangement of a reflecting member included in an image acquiring apparatus, according to embodiments of the present disclosure;

[0054] FIG. 19 is a flowchart illustrating an image acquiring method carried out by an image acquiring apparatus, according to another embodiment of the present disclosure;

[0055] FIG. 20 is a block diagram of an image acquiring apparatus, according to another embodiment of the present disclosure;

[0056] FIGS. 21 and 22 illustrate arrangement of a reflecting member included in an image acquiring apparatus, according to other embodiments of the present disclosure;

[0057] FIGS. 23 and 24 illustrate movement of a reflecting member by a reflecting member moving module included in an image acquiring apparatus, according to an embodiment of the present disclosure;

[0058] FIG. 25 is a flowchart illustrating an image acquiring method carried out by an image acquiring apparatus, according to yet another embodiment of the present disclosure;

[0059] FIG. 26 illustrates an exterior view of an image forming apparatus, according to an embodiment of the present disclosure;